

Exhibit B

Cellular Communication Technologies LLC v. Apple Inc., et al.**EXHIBIT D TO PLAINTIFF'S PRELIMINARY INFRINGEMENT CONTENTIONS**

U.S. Pat. No. 7,941,174	'174 APPLE ACCUSED PRODUCTS ¹
<p>1. A method for operating a radio communication system in which a subscriber station is assigned a plurality of codes for transmitting messages, comprising:</p>	<p>Apple, AT&T, and T-Mobile make, use, sell, offer to sell, and/or import the '174 Apple Accused Products², each of which is a cellular device that includes and performs the features and capabilities described in this claim.</p> <p>Plaintiff contends that each Defendant directly infringes this claim because it makes, uses, sells, offers to sell, and/or imports the '174 Apple Accused Products, each of which includes and/or practices each and every element of this claim. Additionally, each Defendant indirectly infringes this claim by (1) inducing, with knowledge of the patent (at least by virtue of the patent's disclosure to ETSI), its customers' use of the '174 Apple Accused Products to practice each and every one of the following claim elements with knowledge that such practice infringes this claim and intent to cause such infringement (as evidenced for example, in user guides and other instructional materials provided by each Defendant such as instructions to operate the Accused Product within a provided service area), and/or (2) contributing to direct infringement by customers that use the '174 Apple Accused Products to practice each and every one of the following claim elements, with knowledge that the infringing features of the '174 Apple Accused Products have no substantial non-infringing uses (by their nature as proprietary hardware components and software instructions that work in concert to perform specific, intended functions) and that the combination for which such features were made infringes this claim.</p> <p>Each '174 Apple Accused Product is a subscriber station that performs a method as set forth in this claim. Specifically, each '174 Apple Accused Product is a</p>

¹ Discovery in this case is ongoing. Accordingly, Plaintiff expects that these contentions may be subject to supplementation and/or amendment after further discovery and disclosure of Defendant's non-infringement positions in order to focus the issues in this case. For example, Plaintiff may supplement these contentions in response to information learned during discovery to rebut allegations of non-infringement under the doctrine of equivalents. Additionally, Plaintiff expects that these contentions may be subject to amendment or supplementation to identify and accuse additional devices released, developed, or made available after the date on which these contentions are served.

² The '174 Apple Accused Products include the following products: iPhone 4, iPhone 4s, iPhone 5, iPhone 5c, iPhone 5s, iPad 2, iPad (third generation a/k/a "the new iPad" or "iPad 3"), iPad (fourth generation a/k/a "the iPad with Retina display" or iPad 4"), iPad Mini, iPad Mini with Retina display, and iPad Air. Evidence supporting the use of relevant technology contained within this chart is listed in Appendix D-1.

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	<p>cellular device that includes hardware and software (including memory, one or more processors, radios, firmware, and drivers) configured to support and provide wireless communications in a Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Network (UTRAN) environment utilizing HSPA. As such, each '174 Apple Accused Product is compliant with and supports technical specifications published by 3GPP and ETSI for UMTS technology, including TS 25.213, TS 25.215, TS 25.133, and TS 25.214.³ Indeed, the '174 patent is essential to compliance with UMTS standards.⁴</p> <p>In the UMTS network environment, a subscriber station (or user equipment, "UE"), such as each of the '174 Apple Accused Products, is assigned a plurality of codes (e.g., DPCCH, DPDCH, HS-DPCCH, E-DPCCH, and E-DPDCH codes) for transmitting wireless messages. Such codes are defined and described in technical specifications published by 3GPP and ETSI for UMTS technology.⁵</p>
<p>determining a transmit power difference which is to be maintained by the subscriber station between on one hand a total maximum transmit power of the subscriber station for the codes and on another hand a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes.</p>	<p>Each '174 Apple Accused Product determines a transmit power difference which is to be maintained by the subscriber station (i.e., the Accused Product) between, on one hand, a total maximum transmit power of the subscriber station for the codes, and on another hand, a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes.</p> <p>In a UMTS system, each UE is assigned multiple physical channels represented by codes. Such physical channels may include DPCCH, DPDCH, HS-DPCCH, E-DPCCH, and E-DPDCH, each of which is represented by a code.⁶</p> <p>Additionally, each UE is capable of measuring transmission power headroom and</p>

³ See TS 25.213 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125213/09.02.00_60/ts_125213v090200p.pdf; TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf; TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf; TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf.

⁴ http://ipr.etsi.org/IPRDetails.aspx?IPRD_ID=700&IPRD_TYPE_ID=2&MODE=2 (last accessed Mar. 20, 2014).

⁵ TS 25.213 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125213/09.02.00_60/ts_125213v090200p.pdf, at 8-9.

⁶ *Id.*

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	<p>reporting available power headroom for particular channels to nodes in the UMTS network. The reported UE transmission power headroom measurement is an estimate of the average value of the UE transmission power headroom over a 100ms period.⁷</p> <p>UE transmission power headroom (UPH) is defined in TS 25.215 as follows:⁸</p> <p>5.1.14 UE transmission power headroom</p> <table border="1" data-bbox="766 581 1795 889"> <tr> <td data-bbox="766 581 968 889">Definition</td><td data-bbox="968 581 1795 889"> <p>For each uplink DPCCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCCH}$ <p>where:</p> <p>$P_{max,tx} = \min \{ \text{Maximum allowed UL TX Power}, P_{max} \}$ is the UE maximum transmission power; <i>Maximum allowed UL TX Power</i> is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCCH} is the transmitted code power on the DPCCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p> </td></tr> <tr> <td data-bbox="766 865 968 889">Applicable for</td><td data-bbox="968 865 1795 889">CELL_FACH intra, CELL_DCH intra</td></tr> </table> <p>As explained above, each '174 Apple Accused Product is configured to support and provide communications in a UMTS environment and therefore complies with UMTS technical specifications. Thus, when communicating in a UMTS environment, each '174 Apple Accused Product determines a UPH by receiving and interpreting information from the NodeB that factors in the power ratio between the E-DPDCD and DPCCCH as required by $\beta_{ed,k,min}/\beta_c$.⁹</p> <p>- Any additional scaling of the total transmit power as described above shall be such that the power ratio between DPCCCH and DPDCH, between DPCCCH and HS-DPCCCH, and between DPCCCH and E-DPCCCH, remains as required by</p>	Definition	<p>For each uplink DPCCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCCH}$ <p>where:</p> <p>$P_{max,tx} = \min \{ \text{Maximum allowed UL TX Power}, P_{max} \}$ is the UE maximum transmission power; <i>Maximum allowed UL TX Power</i> is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCCH} is the transmitted code power on the DPCCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p>	Applicable for	CELL_FACH intra, CELL_DCH intra
Definition	<p>For each uplink DPCCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCCH}$ <p>where:</p> <p>$P_{max,tx} = \min \{ \text{Maximum allowed UL TX Power}, P_{max} \}$ is the UE maximum transmission power; <i>Maximum allowed UL TX Power</i> is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCCH} is the transmitted code power on the DPCCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p>				
Applicable for	CELL_FACH intra, CELL_DCH intra				

⁷ TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf, at 102.

⁸ TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf, at 12.

⁹ TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf at 33-34.

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	<p>sub-clauses 5.1.2.5, 5.1.2.5A and 5.1.2.5B.1, and such that the power ratio between each E-DPDCH and DPCCCH remains as required by $\beta_{ed,k,min}/\beta_c$ if DTX is not used on E-DPDCH. Any slot-level scaling of β_{ed} or DTX of E-DPDCH as described above is applied at layer 1 only and is transparent to higher layers.</p> <p>Thus the UE determines the transmit power difference between a total maximum transmit power of the subscriber station for the codes ($P_{max,tx}$, a constant, or in the alternative, the total allocated power allocated for the codes) and a total transmit power of the subscriber station for the codes at the start of a message transmission using one of the codes (e.g., P_{DPCCCH}).</p>
6. The method as claimed in claim 6, wherein said determining of the transmit power difference is performed by the subscriber station.	<p><i>See</i> analysis of claim 1, which is incorporated herein by reference.</p> <p>As each '174 Apple Accused Product is compliant with technical specifications published by 3GPP and ETSI for UMTS technology, each '174 Apple Accused Product performs the determining of the transmit power difference by virtue of receiving and interpreting information from the NodeB that factors in the power ratio between the E-DPDCH and DPCCCH as required by $\beta_{ed,k,min}/\beta_c$.</p>
9. A method for operating a radio communication system in which a subscriber station is assigned a plurality of codes for transmitting messages, comprising:	<p>Each Defendant makes, uses, sells, offers to sell, and/or imports the '174 Apple Accused Products, each of which is a cellular device that includes and performs the features and capabilities described in this claim.</p> <p>Plaintiff contends that each Defendant directly infringes this claim because it makes, uses, sells, offers to sell, and/or imports the '174 Apple Accused Products, each of which includes and/or practices each and every element of this claim. Additionally, each Defendant indirectly infringes this claim by (1) inducing, with knowledge of the patent (at least by virtue of the patent's disclosure to ETSI), its customers' use of the '174 Apple Accused Products to practice each and every one of the following claim elements with knowledge that such practice infringes this claim and intent to cause such infringement (as evidenced for example, in user guides and other instructional materials provided by each Defendant such as instructions to operate each of the Accused Products within a provided service area), and/or (2) contributing to direct infringement by customers that use the '174 Apple Accused Products to practice each and every</p>

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	<p>one of the following claim elements, with knowledge that the infringing features of the '174 Apple Accused Products have no substantial non-infringing uses and that the combination for which such features were made infringes this claim.</p> <p>Each '174 Apple Accused Product is a subscriber station that performs a method as set forth in this claim. Specifically, each '174 Apple Accused Product is a cellular device that includes hardware and software (including memory, one or more processors, radios, firmware, and drivers) configured to support and provide wireless communications in a Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Network (UTRAN) environment. As such, each '174 Apple Accused Product is compliant with technical specifications published by 3GPP and ETSI for UMTS technology, including TS 25.213, TS 25.215, TS 25.133, and TS 25.214.¹⁰ Indeed, the '174 patent is essential to compliance with UMTS standards.¹¹</p> <p>In the UMTS network environment, a subscriber station (or user equipment, "UE"), such as each of the '174 Apple Accused Products, is assigned a plurality of codes (e.g., DPCCCH, DPDCH, HS-DPCCCH, E-DPCCCH, and E-DPDCH codes) for transmitting wireless messages. Such codes are defined and described in technical specifications published by 3GPP and ETSI for UMTS technology.¹²</p>
maintaining a previously determined transmit power difference by the subscriber station between on one hand a total maximum power of the subscriber station for the codes and on another hand a total transmit power of the subscriber	<p>Each '174 Apple Accused Product maintains a previously determined transmit power difference by the subscriber station (i.e., the Accused Product) between, on one hand, a total maximum transmit power of the subscriber station for the codes, and on another hand, a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes.</p> <p>In a UMTS system, each UE is assigned multiple physical channels represented</p>

¹⁰ See TS 25.213 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125213/09.02.00_60/ts_125213v090200p.pdf; TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf; TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf; TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf.

¹¹ http://ipr.etsi.org/IPRDetails.aspx?IPRD_ID=700&IPRD_TYPE_ID=2&MODE=2 (accessed Dec. 28, 2013).

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station for the codes at a start of a message transmission using a first one of the codes.	<p>by codes. Such physical channels may include DPCCH, DPDCH, HS-DPCCH, E-DPCCH, and E-DPDCH, each of which is represented by a code.¹³</p> <p>Additionally, each UE is capable of measuring transmission power headroom and reporting available power headroom for particular channels to nodes in the UMTS network. The reported UE transmission power headroom measurement is an estimate of the average value of the UE transmission power headroom over a 100ms period.¹⁴</p> <p>UE transmission power headroom (UPH) is defined in TS 25.215 as follows:¹⁵</p> <p>5.1.14 UE transmission power headroom</p> <table border="1" data-bbox="764 711 1793 1019"> <tr> <td data-bbox="764 711 968 1019">Definition</td><td data-bbox="968 711 1793 1019"> <p>For each uplink DPCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCH}$ <p>where:</p> <p>$P_{max,tx}$ = min {Maximum allowed UL TX Power, P_{max}} is the UE maximum transmission power; Maximum allowed UL TX Power is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCH} is the transmitted code power on the DPCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p> </td></tr> <tr> <td data-bbox="764 992 968 1019">Applicable for</td><td data-bbox="968 992 1793 1019">CELL_FACH intra, CELL_DCH intra</td></tr> </table> <p>As explained above, each '174 Apple Accused Product is configured to support and provide communications in a UMTS environment and therefore complies with UMTS technical specifications. Thus, when communicating in a UMTS environment, each '174 Apple Accused Product determines a UPH by receiving</p>	Definition	<p>For each uplink DPCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCH}$ <p>where:</p> <p>$P_{max,tx}$ = min {Maximum allowed UL TX Power, P_{max}} is the UE maximum transmission power; Maximum allowed UL TX Power is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCH} is the transmitted code power on the DPCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p>	Applicable for	CELL_FACH intra, CELL_DCH intra
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Applicable for	CELL_FACH intra, CELL_DCH intra				

¹³ *Id.*¹⁴ TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf, at 102.¹⁵ TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf, at 12.

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	<p>and interpreting information from the NodeB that factors in the power ratio between the E-DPDCD and DPCCH as required by $\beta_{ed,k,min}/\beta_c$.¹⁶</p> <p>- Any additional scaling of the total transmit power as described above shall be such that the power ratio between DPCCH and DPDCH, between DPCCH and HS-DPCCH, and between DPCCH and E-DPCCH, remains as required by sub-clauses 5.1.2.5, 5.1.2.5A and 5.1.2.5B.1, and such that the power ratio between each E-DPDCD and DPCCH remains as required by $\beta_{ed,k,min}/\beta_c$ if DTX is not used on E-DPDCD. Any slot-level scaling of β_{ed} or DTX of E-DPDCD as described above is applied at layer 1 only and is transparent to higher layers.</p> <p>Thus the UE determines and maintains the transmit power difference between a total maximum transmit power of the subscriber station for the codes ($P_{max,tx}$, a constant, or in the alternative, the total allocated power allocated for the codes) and a total transmit power of the subscriber station for the codes at the start of a message transmission using one of the codes (e.g., P_{DPCCH}).</p> <p>The UE, when receiving a command to scale the transmission power, distributes the increment/decrement among all codes such that ratios are always maintained according to their respective conditions. Hence, the UE, or the processor within the UE, is programmed to maintain a previously determined transmit power difference.</p>
14. The method as claimed in claim 9, wherein said determining of the transmit power difference is performed by the subscriber station.	<p>See analysis of claim 9, which is incorporated herein by reference.</p> <p>As each '174 Apple Accused Product is compliant with technical specifications published by 3GPP and ETSI for UMTS technology, each '174 Apple Accused Product performs the determining of the transmit power difference by virtue of receiving and interpreting information from the NodeB that factors in the power ratio between the E-DPDCD and DPCCH as required by $\beta_{ed,k,min}/\beta_c$.</p>
18. A subscriber station for a radio communication system, the subscriber station assigned a plurality of codes for	Each Defendant makes, uses, sells, offers to sell, and/or imports the '174 Apple Accused Products, each which is a cellular device that includes and performs the features and capabilities described in this claim.

¹⁶ TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf at 33-34.

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transmitting messages, comprising:	<p>Plaintiff contends that each Defendant directly infringes this claim because it makes, uses, sells, offers to sell, and/or imports the '174 Apple Accused Products, each of which includes and/or practices each and every element of this claim.</p> <p>Each '174 Apple Accused Product is a subscriber station for a radio communication system, as set forth in this claim. Specifically, each '174 Apple Accused Product is a cellular device that includes hardware and software (including memory, one or more processors, radios, firmware, and drivers) configured to support and provide wireless communications in a Universal Mobile Telecommunications System (UMTS) Terrestrial Radio Access Network (UTRAN) environment. As such, each '174 Apple Accused Product is compliant with technical specifications published by 3GPP and ETSI for UMTS technology, including TS 25.213, TS 25.215, TS 25.133, and TS 25.214.¹⁷ Indeed, the '174 patent is essential to compliance with UMTS standards.¹⁸</p> <p>In the UMTS network environment, a subscriber station (or user equipment, "UE"), such as each of the '174 Apple Accused Products, is assigned a plurality of codes (e.g., DPCCCH, DPDCH, HS-DPCCCH, E-DPCCCH, and E-DPDCH codes) for transmitting wireless messages. Such codes are defined and described in technical specifications published by 3GPP and ETSI for UMTS technology.¹⁹</p>
at least one processor programmed to determine a transmit power difference which is to be maintained by the subscriber station between on one hand a total maximum transmit power of the	Each '174 Apple Accused Product includes a processor programmed to determine a transmit power difference which is to be maintained by the subscriber station (i.e., the Accused Product) between, on one hand, a total maximum transmit power of the subscriber station for the codes, and on another hand, a total transmit power of the subscriber station for the codes at a start of a

¹⁷ See TS 25.213 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125213/09.02.00_60/ts_125213v090200p.pdf; TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf; TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf; TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf.

¹⁸ http://ipr.etsi.org/IPRDetails.aspx?IPRD_ID=700&IPRD_TYPE_ID=2&MODE=2 (accessed Dec. 28, 2013).

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subscriber station for the codes and on another hand a total transmit power of the subscriber station for the codes at a start of a message transmission using a first one of the codes.	<p>message transmission using a first one of the codes.</p> <p>In a UMTS system, each UE is assigned multiple physical channels represented by codes. Such physical channels may include DPCCH, DPDCH, HS-DPCCH, E-DPCCH, and E-DPDCH, each of which is represented by a code.²⁰</p> <p>Additionally, each UE is capable of measuring transmission power headroom and reporting available power headroom for particular channels to nodes in the UMTS network. The reported UE transmission power headroom measurement is an estimate of the average value of the UE transmission power headroom over a 100ms period.²¹</p> <p>UE transmission power headroom (UPH) is defined in TS 25.215 as follows:²²</p> <p>5.1.14 UE transmission power headroom</p> <table border="1" data-bbox="764 797 1793 1105"> <tr> <td data-bbox="764 797 968 1105">Definition</td><td data-bbox="968 797 1793 1105"> <p>For each uplink DPCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCH}$ <p>where:</p> <p>$P_{max,tx} = \min \{ \text{Maximum allowed UL TX Power}, P_{max} \}$ is the UE maximum transmission power; <i>Maximum allowed UL TX Power</i> is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCH} is the transmitted code power on the DPCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p> </td></tr> <tr> <td data-bbox="764 1081 968 1105">Applicable for</td><td data-bbox="968 1081 1793 1105">CELL_FACH intra, CELL_DCH intra</td></tr> </table> <p>As explained above, each '174 Apple Accused Product is configured to support and provide communications in a UMTS environment and therefore complies with UMTS technical specifications. Thus, when communicating in a UMTS environment, each '174 Apple Accused Product determines a UPH by receiving</p>	Definition	<p>For each uplink DPCCH, UE transmission power headroom (UPH) is the ratio of the maximum UE transmission power and the DPCCH code power, and shall be calculated as following:</p> $UPH = P_{max,tx} / P_{DPCCH}$ <p>where:</p> <p>$P_{max,tx} = \min \{ \text{Maximum allowed UL TX Power}, P_{max} \}$ is the UE maximum transmission power; <i>Maximum allowed UL TX Power</i> is set by UTRAN and defined in [14];</p> <p>P_{max} is the UE nominal maximum output power according to the UE power class and specified in [18] table 6.1;</p> <p>P_{DPCCH} is the transmitted code power on the DPCCH.</p> <p>The reference point for the UE transmission power headroom shall be the antenna connector of the UE.</p>	Applicable for	CELL_FACH intra, CELL_DCH intra
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²⁰ *Id.*²¹ TS 25.133 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125100_125199/125133/09.07.00_60/ts_125133v090700p.pdf, at 102.²² TS 25.215 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125215/09.02.00_60/ts_125215v090200p.pdf, at 12.

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EXHIBIT D TO PLAINTIFF'S PRELIMINARY INFRINGEMENT CONTENTIONS

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	<p>and interpreting information from the NodeB that factors in the power ratio between the E-DPDCD and DPCCCH as required by $\beta_{ed,k,min}/\beta_c$.²³</p> <p>- Any additional scaling of the total transmit power as described above shall be such that the power ratio between DPCCCH and DPDCH, between DPCCCH and HS-DPCCCH, and between DPCCCH and E-DPCCCH, remains as required by sub-clauses 5.1.2.5, 5.1.2.5A and 5.1.2.5B.1, and such that the power ratio between each E-DPDCD and DPCCCH remains as required by $\beta_{ed,k,min}/\beta_c$ if DTX is not used on E-DPDCD. Any slot-level scaling of β_{ed} or DTX of E-DPDCD as described above is applied at layer 1 only and is transparent to higher layers.</p> <p>Thus the UE determines the transmit power difference between a total maximum transmit power of the subscriber station for the codes ($P_{max,tx}$, a constant, or in the alternative, the total allocated power allocated for the codes) and a total transmit power of the subscriber station for the codes at the start of a message transmission using one of the codes (e.g., P_{DPCCCH}).</p>
19. A subscriber station as claimed in claim 18, wherein said at least one processor is further programmed to maintain the transmit power difference.	<p><i>See</i> analysis of claim 18, which is incorporated herein by reference.</p> <p>As each '174 Apple Accused Product is compliant with technical specifications published by 3GPP and ETSI for UMTS technology, the processor of each '174 Apple Accused Product is further programmed to maintain the previously determined transmit power difference. The UE, when receiving a command to scale the transmission power, distributes the increment/decrement among all codes such that ratios are always maintained according to their respective conditions. Hence, the UE, or the processor within the UE, is programmed to maintain a previously determined transmit power difference.</p>

²³ TS 25.214 Technical Specification, http://www.etsi.org/deliver/etsi_ts/125200_125299/125214/09.07.00_60/ts_125214v090700p.pdf at 33-34.